

RAZUVAYEV, G.A.; LATYAYEVA, V.N.; VYSHINSKAYA, L.I.

Some reactions of biscyclopentadienyldiphenyltitanium. Dokl. AN SSSR  
134 no.3:612-614 S '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta im. N.I. Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for Razuvayev).  
(Titanium compounds)

5370025319S/020/61/138/005/019/025  
B103/B22

AUTHORS: Razuvayev, G. A., Corresponding Member AS USSR, Latyaeva, V.N., and Vysinskaya, L. I.

TITLE: Reaction of benzoyl peroxide with titanocene derivatives

PERIODICAL: Akademiya nauk SSSR, Doklady, v. 138, no. 5, 1961, 1126-1129

TEXT: The authors studied the interaction of biscyclopentadienyl titanium  $(C_2H_5)_2Ti$  with benzoyl peroxide, since the acyl peroxides are donors of acyloxy radicals and easily break the O-O bond. According to a previous paper by the authors (Ref. 1: DAN, 134, 612 (1960)),  $(C_2H_5)_2Ti$  forms on thermal decomposition of biscyclopentadienyl-phenyl titanium in alcohol or benzene solution, is very reactive and sensitive to atmospheric oxygen. Benzoyl peroxide is known to destroy sandwich compounds completely (Posakker, Ref. 2: RZhKhim, 1959, No. 22, 78502). In the present case, the titanocene group was not decomposed in benzene or isopropyl alcohol in the cold by the action of benzoyl peroxide. The color of the solution changed instantaneously from dark green to dazzling yellow.  $CO_2$  was not

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Reaction of benzoyl peroxide with...

S/020/61/138/005/019/025  
B103/B220

liberated in the reaction. The yellow crystalline product obtained in a dry nitrogen atmosphere was the expected biscyclopentadienyl titanium dibenzoate:  $(C_5H_5)_2Ti(OCOC_6H_5)_2$ . Since it had not yet been described,

the authors also synthesized it from titanocene dichloride and silver benzoate. They checked its identity by ultimate analysis (for which T. V. Guseva is thanked), by determination of the molecular weight, the melting point, and the content of benzoate groups.  $(C_5H_5)_2Ti(OCOC_6H_5)_2$

can be hydrolyzed very easily, whereby the molecule of the titanocene salt decomposes and cyclopentadiene, the salt of benzoic acid, and titanic acid are formed. On alcoholysis in absolute isopropyl alcohol, cyclopentadiene, acetone, and benzoic acid were found among the reaction products. By the action of moist air, the titanocene dibenzoate molecule loses two moles of cyclopentadiene and can be converted to dibenzoxy titanium oxide  $O-Ti(OCOC_6H_5)_2$ . This product is infusible. An analogous representative of compounds of the type  $(C_5H_5)_2Ti(OCOR)_2$  was obtained by the reaction of titanocene dichloride with silver acetate:  $(C_5H_5)_2Ti(OCOCH_3)_2$

It is yellow, melts at 127-130°C, and corresponds to biscyclopentadienyl

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Reaction of benzoyl peroxide with...S/020/61138/005/019/025  
B103/B220

titanium diacetate. On alcoholysis of the latter in absolute isopropyl alcohol, acetate groups were split off and cyclopentadiene was formed to some extent. A yellow substance was precipitated, which is insoluble in organic solvents and has a structure unknown so far. Dissolved acetone was found in the isopropyl alcohol. The yellow substance mentioned was hydrolyzed completely in dilute alkali, whereby cyclopentadiene as well as acetic and titanic acids were formed. The formation of dibenzoate indicates that, unlike ferrocene, the structure of titanocene remains unchanged in this case. The authors studied the action of benzoyl peroxide on the cyclopentadienyl compounds of tetravalent titanium, i.e., on diphenyl biscyclopentadienyl titanium. Even at room temperature, the phenyl radicals in isopropyl alcohol are replaced by the acyloxy groups of the peroxide:  $(C_5H_5)_2Ti(C_6H_5)_2 + (C_6H_5COO)_2 + CH_3CH(OH)CH_3 \rightarrow (C_5H_5)_2Ti(OCOC_6H_5)_2 + 2C_6H_6 + CH_3COCH_3$ . Thereby, biscyclopentadienyl titanium dibenzoate is formed. The phenyl radicals are converted into benzene by dehydration of the alcohol to acetone. The following absorption bands (in  $cm^{-1}$ ) were found by comparing the infrared spectra of the final and the initial compounds:  $(C_5H_5)_2Ti(C_6H_5)_2$  448, 459, 606, 690, 720, 750, 822, 886, 930, X

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Reaction of benzoyl peroxide with...  
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1024, 1076, 1286;  $(C_5H_5)_2TiCl_2$ : 769, 814, 828, 872, 885, 930, 1018;  $(C_5H_5)_2Ti(OCOCH_3)_2$  404, 520, 600, 624, 822, 865, 1024;  $(C_5H_5)_2Ti(OCOC_6H_5)_2$  720, 830, 865, 1024, 1068, 1132. The bands 822-830 and 1018-1024  $cm^{-1}$  are to be found in all spectra. They are interpreted by the authors as vibrations of the cyclopentadienyl ring. The band 865  $cm^{-1}$  is absent in the spectra of the initial compounds, and is interpreted as belonging to the vibrations of the Ti-O bond. There are 1 table and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J. D. Varma, R. C. Mehrotra (Ref. 3: J. Pract. Chem. 8, 64 (1959)).

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at Gor'kiy State University imeni N. I. Lobachevskogo)

SUBMITTED: February 20, 1961

Card 4/4

ACC NR: AP700667

SOURCE CODE: UR/0379/66/036/008/1491/1498

AUTHOR: Rizuvayev, G. A.; Latyayeva, V. N.; Vyshinskaya, L. I.; Kilyakova, G. A. *34*  
ORG: Scientific Research Institute, Gor'kiy State University im. N. I. Lobachevskiy (Nauchno-issledovatel'skiy institut pri gor'kovskom gosudarstvennom universitete)

TITLE: Some reactions of Bis-cyclopentadienyltitanium and monocyclopentadienylphenyltitanium

SOURCE: Zhurnal obshchey khimii v. 36, no. 8, 1966, 1491-1498

TOPIC TAGS: organotitanium compound, thermal decomposition, chemical bonding

ABSTRACT: In a study of whether thermal reactions of decomposition of pi-cyclopentadienyl compounds of tetravalent titanium are common for different R, and a comparison of the reactions of newly obtained cyclopentadienyl derivatives with the known reactions of tetraphenyl- and diphenyltitanium, the thermal decomposition of  $(C_5H_5)_2TiR_2$  was studied, where R =  $CH_3$ ,  $C_6H_5$ , and  $C_5H_5Ti(C_6H_5)_3$ . Their reactions with halo-derivatives and oxidation were also studied, and the data obtained were compared with analogous data for tetraphenyltitanium. The new cyclopentadienyl compounds with tetravalent titanium  $(C_5H_5)_2TiR_2$ , when heated, exhibited a cleavage of the Ti-R bond, forming titanium compounds of lower valence, analogously to tetraphenyltitanium, which breaks down into diphenyltitanium and diphenyl. The pi- $C_5H_5$ -Ti bond was unaffected. The stability of the compounds to thermal decomposition increased in the series:  $(C_6H_5)_4Ti < (C_5H_5)_2Ti(C_6H_5)_3 < (C_5H_5)_2Ti(C_6H_5)_2$ .  $C_5H_5Ti(C_6H_5)_3$  was synthesized

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UDC: 547.1'3:546.821

0426 0291

L1141-04

ACC NR: AF7003667

for the first time, and possessed one pi-bond  $C_5H_5-Ti$  and three sigma-bonds  $C_6H_5-Ti$ . The products of thermal decomposition:  $(C_6H_5)_2Ti$ ,  $C_5H_5TiC_6H_5$ , and  $(C_5H_5)_2Ti$  were more stable to the action of high temperatures, but were extremely readily oxidized. The reactions of  $(C_6H_5)_2Ti$ ,  $C_6H_5TiC_6H_5$ , and  $(C_5H_5)_2Ti$  with halo-derivatives included cleavage of the pheryltitanium bonds and their replacement by chlorine-titanium bonds. In the reaction of these compounds with chloroform, carbon tetrachloride, mercuric chloride, and hydrogen chloride, the  $C_5H_5-Ti$  and  $(C_5H_5)_2Ti$  groups were unaffected. The titanium-containing final products were  $TiCl_4$ ,  $C_5H_5TiCl_3$ , and  $(C_5H_5)_2TiCl_2$ , respectively. The reactions of organotitanium compounds considered illustrate the relative stability of the pi-bond  $C_5H_5-Ti$  to the action of temperatures, halo-derivatives and other reagents in comparison with the sigma-bond  $Ti-R$ . [PRS: 38,970]

SUB CODE: 07 / SUBM DATE: 06Ju165 / ORIG REF: 007 / OTH REF: 003

Card 2/2 jb

VYSHINSKAYA, T. Ye.

Treatment of hypertension with dicoline and dimecoline. Sov.  
med. 27 no.11:46-51 N '63 (MIRA 18:1)

1. Iz gospital'noy terapeuticheskoy kliniki (direktor - dey-  
stvitel'nyy chlen AN SSSR prof. A.A. Engiasarov [deceased]  
II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

RADIN, Vladimir Isaakovich, kand. tekhn. nauk; CHERCHEPOV, Vyacheslav Vyacheslavovich, starshiy prepodavatel'; VYSINSKAYA, Valentina Pavlovna, inzh.

Thermal design of enclosed short-circuited asynchronous motors using digital computers. Izv. vys. ucheb. zav.; elektromekh. 8 no.5:595-598 '65. (MIRA 18:7)

1. Glavnnyy konstruktor elektromekhanicheskogo zavoda imeni Vladimira Il'icha (for Radin). 2. Kafedra elektricheskikh mashin, apparatov, matematicheskikh i schetnoreshayushchikh priborov i ustroystv Novocherkasskogo politekhnicheskogo instituta (for Cherpov). 3. Vychislitel'nyy tsentr Novocherkasskogo politekhnicheskogo instituta (for Vysinskaya).

VYSHINSKIY, A. M.

J-4

USSR/Soil Cultivation. Organic Fertilizers.

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1272.

Author : Vyshinskiy, A.M.

Inst : Academy of Science UkSSR

Title : The Effectiveness of Peat-Manure Composts In Various Methods of Preparation.

Orig Pub: Sb.; Vopr. Razvitiya s. kh. Poles'ya, Kiev, Akad Nauk UkSSR, 1956 (1957), 81-90.

**Abstract:** In 1937 the Ukrainian Scientific-Research-Institute of Agriculture (UNIZ and its testing system), in a series of long-term and short-term experiments, made a study of methods of preparing peat-manure composts and their effectiveness in regions of Poles'ya UkSSR. The peat-manure composts, in a ratio of 2:1 or even 4:1 when prepared for summer-autumn composting and 1:1 when composted in the winter, must be considered as the more promising. Four months of composting (somewhat longer in winter and shorter in

Card : 1/3

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USSR/Soil Cultivation. Organic Fertilizers.

J-4

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1272.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001961410015-3"

summer, was sufficient under Poles'ye conditions. Peat-manure composts prepared from fresh manure were far superior to those prepared from the same quantity of dried and scattered manure. Over seven or eight months of storage the loss in nitrogen varied usually between 1% and 3%. In its effect on potato yield the peat-manure mixture differed little from the same quantity of pure manure, and the effects continued to be felt throughout the rotation; on the sixth crop -- winter wheat -- an increase in grain yield of 1.2 centners/hectare was achieved. Use of peat-manure compost in potato sowings was favorably reflected in the yield and quality of the cover crop -- flax-fibre "Iendolgunets". The flax fiber and seed yield increased, as did the quality of both. Under the combined influence of the peat-manure composts and the grasses the quantity of humus in the

Card : 2/3

-10-

VYSHINSKIY, Aleksandr Mikhaylovich [Vyszhyns'kyi, O.M.], kand.sel'skokhoz.  
nauk; MINEVICH, S.M., kand.sel'skokhoz.nauk, otv.red.; GUREJKO,  
V.A. [Hurenko, V.A.], red.

[Organic fertilizers, their accumulation and effective utilization]  
Organichni dobryva, ikh nahromadzhennia ta efektyvne zastosuvannia.  
Kyiv, 1960. 39 p. (Tovarystvo dlia poshyrennia polutychnykh i  
naukovykh znan' Ukrains'koi RSR. Ser. [6 or 7], no.5.

(MIRA 13:6)

(Organiculture)

1. VYSHINSKII, A. M.
2. USSR (600)
4. Potassium Salts
7. Stebniki and Kalush potassium salts as fertilizers for crops in the Poles'ye and forest steppe of the Ukrainian S.S.R., Trudy UMDISOV, 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

ca

3

Nuclear scattering of electrons in thin metallic layers.  
I. V. A. Petukhov and I. A. Vyshinski, *J. Exp. Theoret. Phys. (U. S. S. R.)* 10, 1170 (1940). The scattering of 40-120-e. V. electrons in aluminum films of  $5 \times 10^{-4} \text{ to } 2 \times 10^{-3}$  cm thickness and angles of 119.5-122° as a function of their energies was determined by means of longitudinal focusing of a homogeneous magnetic field. Nuclear scattering is elastic, without loss of energy, and the effective cross section is given by Mott's theory (cf. C. J. 22, 500). No anomalous scattering was observed in thin films; in thicker layers losses are due to multiple scattering. The results of Neher (C. J. 26, 900) could not be verified. P. H. Rathmann

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

VYSHINSKIY, A.M.

System of fertilizer application in crop rotations of the Ukrainian  
Polesye. Zemledelie 7 no.9:47-56 8 '59. (MIRA 12:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.  
(Polesye--Fertilizers and manures)

VYSHINSKIY, A.M.

Local organic fertilizers in Polesye and the forest-steppe of  
the Ukrainian S.S.R. Zemledelich' no.1:40-45 Ja '59.

(MIRA 12:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.  
(Polesya--Fertilizers and manures)  
(Ukraine--Fertilizers and manures)

VYSHINSKY

46. NUCLEAR SCATTERING OF ELECTRONS IN THE  
METALLIC STATE. Measurements on 40-120 eV  
electrons agreed with Mott's Theory. Neher's  
Results completely Inexplicable. Petukhov &  
Vyhinsky. (Journ. of Phys. [of USSR], No. 3,  
Vol. 4, 1941, pp. 233-240; in English.)

1946. NUCLEAR SCATTERING OF ELECTRONS IN THE  
METALLIC VENUS. Measurements on 40-220 eV  
Electrons agree with Mott's Theory. Nechaev  
Results completely Inexplicable. -- Petukhov &  
Vyslinsky. (Journ of Phys. [of USSR], No. 3,  
Vol. 4, 1941, pp. 233-246; in English.)

VYSHINSKY, A. M.

Effect of granular fertilizers on yields of grain crops and sugar beet. A. M. Vyshinsky (Sov. Agron., 1931, 13-25; Soils & Fert., 1930, 13, 426).—Granular superphosphate was superior to ordinary superphosphate. Granular superphosphate prepared by sieving ordinary superphosphate was only slightly inferior to commercial granular superphosphate. Granules consisting of a mixture of superphosphate and org. matter were particularly effective, especially when applied both at a depth during autumn ploughing and in the rows at seedling time. A. H. CORNFIELD.

VYSHINSKY, A. H.

Effect of granular fertilizers on yields of grain crops and sugar beet. A. M. Vyshinsky (Soil. Agron., 1950, 18-23; Soils & Fert., 1950, 18, 428).—Granular superphosphate was superior to ordinary superphosphate. Granular superphosphate prepared by sieving ordinary superphosphate was only slightly inferior to commercial granular superphosphate. Granules consisting of a mixture of superphosphate and organic matter were particularly effective, especially when applied both at a depth during autumn ploughing and in shallow rows at seeding time. A. H. Gurnick.

1311-1

BA

*Effect of granular fertilizers on yields of grain crops and sugar  
beet. A. M. Vysotsky (Sov. Agron., 1960, 18-23; Soils & Fert.,  
1960, 18, 426). Granular superphosphate was superior to ordinary  
ordinary superphosphate. Granular superphosphate prepared by sieving  
granular superphosphate was only slightly inferior to commercial  
superphosphate and org. matter was particularly effective in  
when applied both at a depth during autumn ploughing, especially  
when ploughed at sowing time.*

VYSHINSKIY, A.V.

Kinematic calculation of the driving gear for the working  
part of a boring machine. Trudy TSNII Podzemshakhstroia  
no. 2:56-60 '63. (MIRA 17:5)

VYSHINSKIY, A.V., inzh.

Determining tension in cables for the suspension of mine  
scaffolds. Shakht. stroi. 8 no.2:10-12 F '64.  
(MIRA 17:3)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-  
konstruktorskiy institut podzemnogo i shakhtnogo stroitel'-  
stva.

VYSHINSKIY, A.V., inzh.

Design of wedge-shaped rope fasteners. Shakht. stroi. 6 no.5:9-12  
(MIRA 15:7)  
My '62.

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy  
institut podzemnogo shakhtnogo stroitel'stva.  
(Wire rope)

VYSHINSKIY, Andrey Yanurevich.  
Lenin and Stalin, the great organizers of the Soviet state. Moscow,  
Foreign Languages Pub. House, 1949.

71 p.  
Bibliographical footnotes.

So: N/5  
101.1  
.V91  
1949

VYSKINSKIY, ANDREY YAKOVLEVICH

Izbiratel'nyy zakon SSSR (Electoral law in the USSR) v voprosakh i otevetaakh Moskva  
Gosyurizdat, 1954. 39 p.

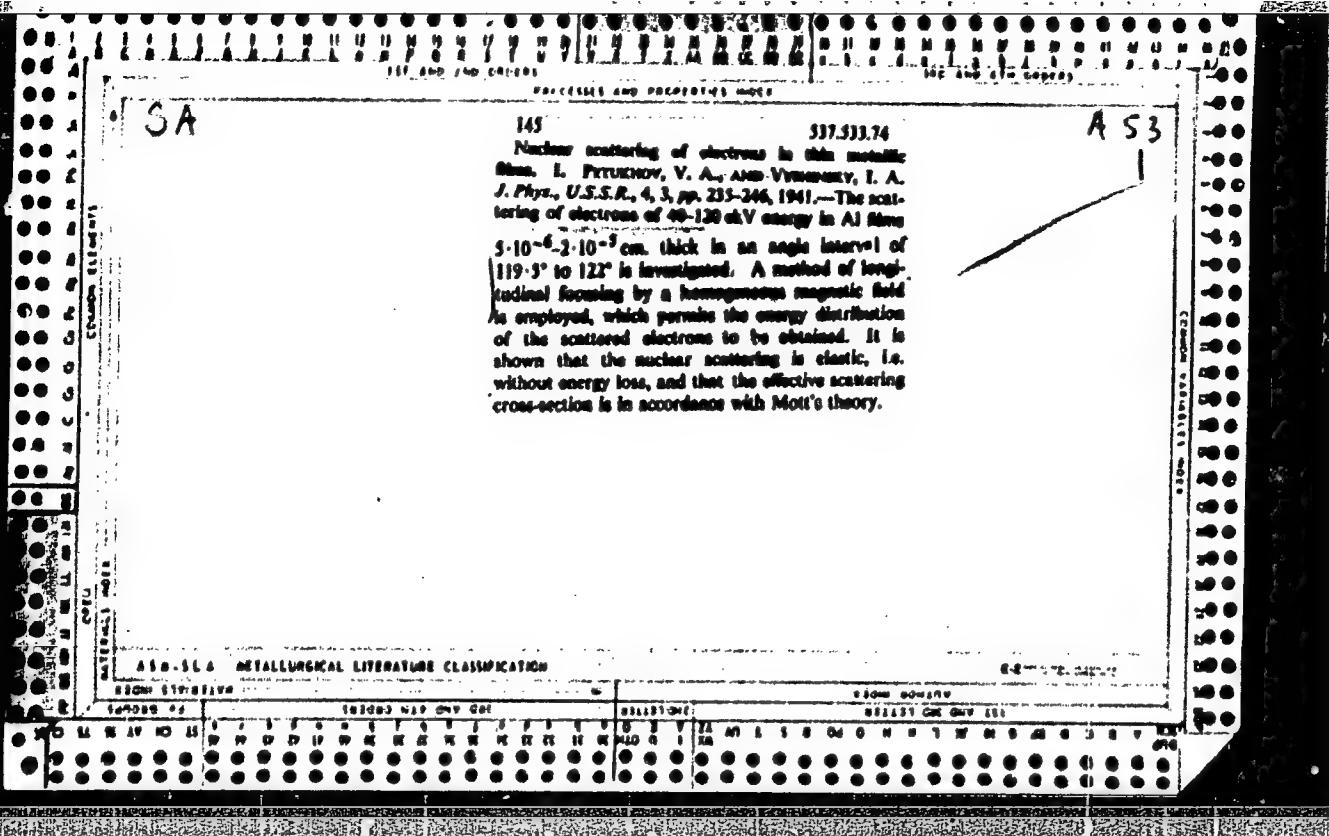
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.V9

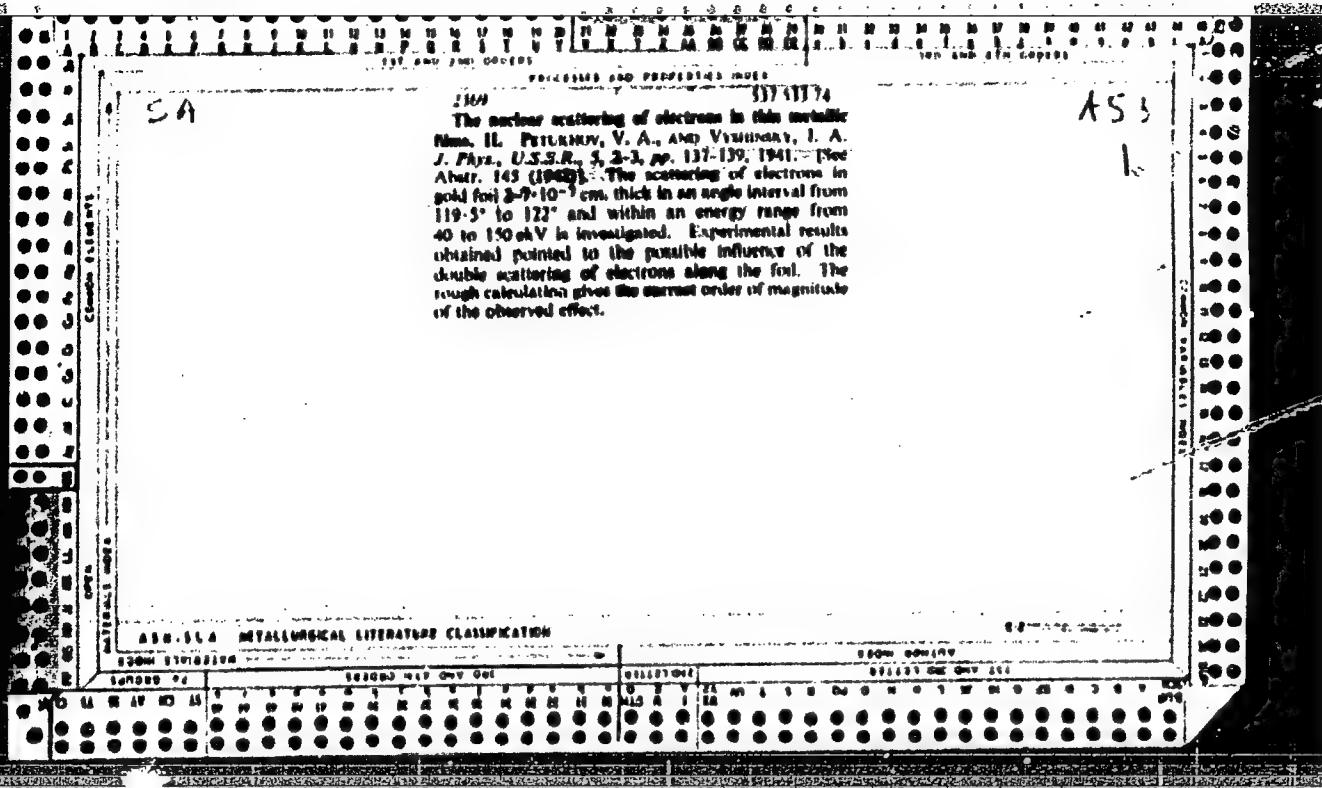
VYSHINSKY, I. A.

SA

453

145 537.533.74  
Nuclear scattering of electrons in thin metallic  
films. I. PETUKHOV, V. A., AND VYSHINSKY, I. A.  
*J. Phys. U.S.S.R.*, 4, 3, pp. 235-246, 1941.—The scattering of electrons of 40-120 ekV energy in Al films  $5 \cdot 10^{-6}$ - $2 \cdot 10^{-5}$  cm. thick in an angle interval of  $119.5^\circ$  to  $122^\circ$  is investigated. A method of longitudinal focusing by a homogeneous magnetic field is employed, which permits the energy distribution of the scattered electrons to be obtained. It is shown that the nuclear scattering is elastic, i.e. without energy loss, and that the effective scattering cross-section is in accordance with Mott's theory.





CA

Scattering of electrons in thin foils - V. A. Petukhov and I. A. Vysotskii. *Hull and Zn. Fiz. N. A. Ser. Phys. B*, 6, 600 (1941). Electron scattering was studied in very thin Al foils at energies of 40-120 e. kv. and at angles of 119.6-123°. The results definitely disprove the existence of an anomalous effect of inelastic nuclear scattering. The exptl. curve passes a "tail" due to electrons of reduced energy, caused by secondary scattering in passing through the foil. A rough calcn. shows the amnt. of this effect to agree with the calcn. in the order of magnitude.  
G. M. Kosolapoff

ASM-ELA METALLURGICAL LITERATURE CLASSIFICATION

ITEM 511011194 581003 MAP ONLY ONE

SEARCHED 94

SEARCHED 604197

SERIALIZED 604197

RAZUVAYEV, G.A.; LATYAYEVA, V.N.; VYSHINSKAYA, L.I.; VYSHINSKIY, N.N.

New monocyclopentadienyl compounds of titanium. Dokl. AN SSSR  
156 no. 5:1121-1123 Je '64. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom  
gosudarstvennom universitete im. N.I.Lobachevskogo.
2. Chlen-korrespondent AN SSSR (for Razuvayev).

RAZUVAYEV, G.A.; LATYAYEVA, V.N.; VYSHINSKAYA, L.I.

Oxidation of bis-cyclopentadienylphenyltitanium by hydrogen peroxide.  
Zhur.ob.khim. 32 no.4:1354-1355 Ap '62. (MIRA 15:4)  
(Titanium compounds) (Oxidation)

VYSHINSKAYA, T.Ye.

Oscillographic examination in hypertension. Kardiologija 4  
no.3:73-75 My-Je '64. (MIRA 18-4)

1. Gospital'naya terapevticheskaya klinika (dir. - deystvitel'-nyy chlen AMN SSSR prof. A.A.Bagdasarov) II Moskovskogo meditsinskogo instituta imeni Pirogova.

VYSHINSKIY, L.K.

Useful recommendation. Veterinaria 30 no.7:44 Jy '53. (MLRA 6:?)

1. Zaveduyushchiy Krasnodol'skim zoovetpunktom Kokchetavskoy oblasti.

VYSHINSKIY, L. K.

Kochetav Oblast. A Useful Recommendation

SO: Veterinariya; Vol. 30; No. 7; 44; July 1953; Unclassified.

Trans. #121 by L. Lulich

*M*

**\*The Distribution of the Nuclear Electrons in Thin Metallic (Aluminum) Films.** I. V. A. Potukhov and N. A. Vyshinsky (Zhur. Eksp. i Teor. Fiz., 1940, 10,(11), 1174-1183).—[In Russian].—The distribution of electrons of energy 10-130 ke.v. in aluminum films  $5 \times 10^{-4}$   $2 \times 10^{-4}$  cm. thick in the angular interval 110°-122°, was investigated by the method of longitudinal focusing in a uniform magnetic field. The distribution of electron energy levels was obtained. It is shown that the nuclear distribution takes place elastically, without loss of energy, and that the magnitude of the effective section is in accordance with Mott's formula. —N. A.

ASS-SEA METALLURGICAL LITERATURE CLASSIFICATION

ACCESSION NR: AP4040951

S/0020/64/156/005/1121/1123

(Corresponding member AN SSSR)

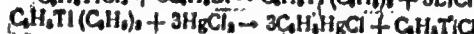
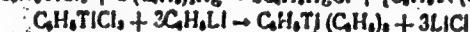
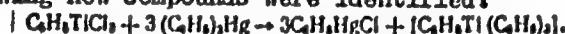
AUTHOR: Razuvayev, G. A., Latyayeva, V. N.; Vyshinskaya, L. I.; Vyshinskiy, N. N.

TITLE: New monocyclopentadienyl derivatives of titanium

SOURCE: AN SSSR. Doklady\*, v. 156, no. 5, 1964, 1121-1123

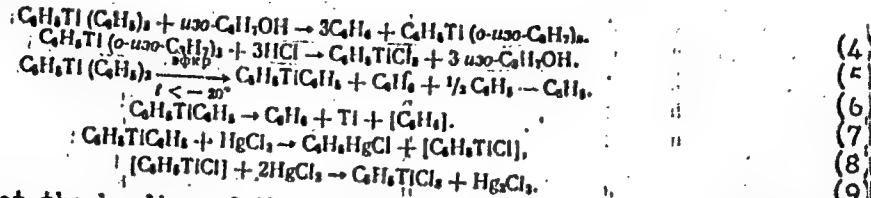
TOPIC TAGS: titanium, titanium derivative, monocyclopentadienyl derivative, Ti monocyclopentadienyl derivative, phenol, cyclopentadienyl timethyltitane, diphenyl mercury, phenyl mercury chloride, organotitanium compound

ABSTRACT: The authors analyzed reactions wherein the Cl atoms in monocyclopentadienyl titanium trichloride were replaced with phenyl groups. G. A. Razuvayev in Cl (DAN, 150 (1963) 566) previously showed that, during the reaction of titanium tetrachloride, all four Cl atoms are replaced by phenyl radicals. The authors therefore initially analyzed the exchange reaction of diphenyl mercury with  $C_6H_5TiCl_3$  at a 3 to 1 ratio in a benzene solution at room temperature. The following new compounds were identified:



Card. 1/2

ACCESSION NR: AP4040951



Authors conclude that the bonding of the titanium atom with the cyclopentadienyl ring in the examined compounds is very similar to a ferrocene bond. Orig. art. has: 11 Formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute for Chemistry of Gorki State University)

SUBMITTED: 17Feb64

ENCL: 00

SUB CODE: IC

NO REF Sov: 003

OTHER: 003

Card 2/2

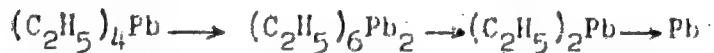
VYSHINSKIY, N.N.

Effect of liquid - crystal phase transitions on the infrared spectra  
of ethyl derivatives of Si, Ge, and Sn. Trudy po khim.i khim.tekh.  
no.1:18-20 '63. (MIRA 17:12)

5.3700

78293  
SOV/79-30-3-47/69

AUTHORS: Razuvayeva, G. A., Vyazankin, N. S., Vyshinskiy, N. N.

TITLE: Thermal Decomposition of Tetraethyllead and  
Hexaethylidiplumbane, II. Decomposition of Tetra-  
ethyllead, Hexaethylidiplumbane, and Diethyllead  
MixturesPERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 967-  
972 (USSR)ABSTRACT: This is a continuation of the authors' previous study  
of thermal decomposition of organic lead compounds  
(ZhOKh, 29, 3662, 1959), where it was shown that the  
thermal decomposition of tetraethyllead (I) proceeds  
through the formation of intermediate hexaethylidiplumbane  
(II), according to:

Card 1/5

This paper describes the thermal decomposition of  
I and II, and II and diethyllead (III) mixtures. Since

Thermal Decomposition of Tetraethyllead  
and Hexaethylplumbane. II

78293  
SOV/79-30-3-47/69

it was observed previously that the properties of II, prepared according to F. Hein and A. Klein (Ber., 71, 2381, 1938), depend on the conditions of synthesis, the processes which take place in the synthesis of II were also studied. The mixture of I and II was prepared in the receiver of a special apparatus for distilling I in a hydrogen atmosphere under vacuum. The ampoules with the mixture were kept at  $135 \pm 0.4^\circ$  and frozen with liquid nitrogen. Synthesis of II was achieved at  $18 \pm 0.2^\circ$  from a mixture of aluminum powder and triethyllead chloride solution in 2.5N KOH. The time effect of synthesis is shown in Fig. 2. Thermal decomposition of II and other results of the experiments are given in Figs. 3, 4, and 5. The data obtained confirm the previous conclusion that the thermal decomposition of I proceeds through the formation of an intermediate II, and thermal decomposition of II proceeds through the formation of III. It is suggested that metallic lead formed in the process of decomposition acts as a

Card 2/5

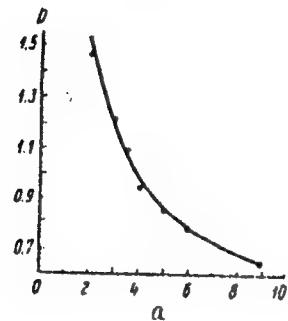
Thermal Decomposition of Tetraethyllead  
and Hexaethylidiplumbane. II78293  
SOV/79-30-3-47/69

Fig. 2. Change of optical density of hexaethylidiplumbane in process of its synthesis. Thickness of absorption layer  $d = 0.020$  mm; wavelength  $\lambda = 400$  m $\mu$ .

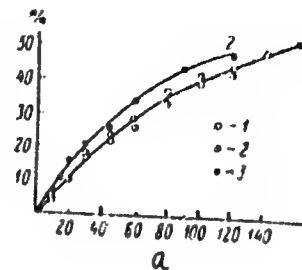


Fig. 3. Decomposition curves of pure tetraethyllead (1); mixture of 2.3% hexamethylidiplumbane and 97.7% tetraethyllead (2); mixture of 19.5% hexaethylidiplumbane and 80.5% tetraethyllead (3).

Card 3/5

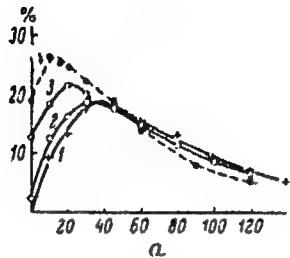
Thermal Decomposition of Tetraethyllead  
and Hexaethylidiplumbane. II78293  
SOV/79-30-3-47/69

Fig. 4. Change of hexaethylidiplumbane concentration in tetraethyllead in thermal decomposition of the latter (1) and its mixture with hexaethylidiplumbane. Starting concentrations of  $(C_2H_5)_6Pb_2$  in mixtures (in % by weight): 2.3 (2); 13.7 (3); 19.5 (4).

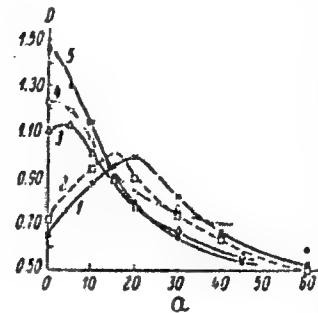


Fig. 5. Curves of optical density ( $d = 0.020$  mm;  $\lambda = 400 m\mu$ ) change in thermal decomposition of hexaethylidiplumbane and diethyllead mixtures. Mixtures were obtained according to Hein and Klein by keeping reagents at a steady temperature for (hr): 9(1), 6(2), 3.5 (3), 3(4), 2(5).

Card 4/5

Thermal Decomposition of Tetraethyllead  
and Hexaethylplumbane. II

78293  
SOV/79-30-3-47/69

catalyst. It was shown that synthesis according to Hein and Klein leads to the formation of a mixture of diethyllead and hexaethylplumbane. There are 5 figures; and 4 references, 1 German, 3 Soviet.

SUBMITTED: March 14, 1959

Card 5/5

S/079/60/030/012/025/027  
B001/B064

AUTHORS: Razuvayev, G. A., Vyazankin, N. S., and Vyshinskiy, N. N.

TITLE: Thermal Decomposition of Lead Tetraethyl, Hexaethyl Diplumbane and Their Analogues. IV. Effect of Precipitating Lead, the Walls of the Vessel and Other Factors Upon the Decomposition Process

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp.4099-4104

TEXT: The authors showed previously (Ref.1) that the thermal decomposition of lead tetraethyl in the liquid phase is a complex chain process proceeding under the formation of less ethylated compounds, hexaethyl diplumbane and lead diethyl:

$(C_2H_5)_4Pb \longrightarrow (C_2H_5)_6Pb_2 \longrightarrow (C_2H_5)_2Pb \longrightarrow Pb$  (I). The formation of a solid phase, metallic lead, is characteristic of this reaction. Previous findings on the decomposition kinetics of binary mixtures of lead tetraethyl and hexaethyl diplumbane (Ref.6) were used to study the role played by this metal in the complicated thermal decomposition processes. Fig.1 shows that the concentration of hexaethyl diplumbane reaches a limit

Card 1/3

Thermal Decomposition of Lead Tetraethyl, S/079/60/030/012/025/027  
Hexaethyl Diplumbane and Their Analogues. B001/B064

IV. Effect of Precipitating Lead, the Walls of the Vessel and Other  
Factors Upon the Decomposition Process

characteristic of the given temperature in the decomposition of pure lead tetraethyl, and that it drops subsequently. It was expected in the decomposition of a specially prepared mixture consisting of  $(C_2H_5)_4Pb$  and  $(C_2H_5)_6Pb_2$ , with a concentration of the second component being close to the limit concentration, that the kinetic curve consist of the descending branch only. Also in this case, however, the concentration of hexaethyl diplumbane increases. These findings are in favor of the fact that lead acts as a catalyst in the splitting of the decomposition intermediates, since in its absence a concentration of hexaethyl diplumbane is observed, and in the presence of considerable amounts of highly dispers<sup>e</sup> metal the  $(C_2H_5)_6Pb_2$  concentration is reduced. It was found that in the decomposition of lead tetraethyl the final product, the highly disperse metallic lead, catalyzes the decomposition intermediates (hexaethyl diplumbane and lead diethyl), so that this thermal decomposition may be regarded as an autocatalytic process. The wall of the vessel has no essential effect upon the decomposition process of lead

Card 2/3

Thermal Decomposition of Lead Tetraethyl, S/079/60/030/012/025/027  
Hexaethyl Diplumbane and Their Analogues. B001/B064  
IV. Effect of Precipitating Lead, the Walls of the Vessel and Other  
Factors Upon the Decomposition Process

tetraethyl and hexaethyl diplumbane. In the presence of atmospheric oxygen the oxidation of lead tetraethyl suppresses the thermal decomposition reaction completely. Traces of atmospheric oxygen and products of the incomplete oxidation of lead tetraethyl inhibit the thermal decomposition process considerably. Stronger inhibitors of the thermal decomposition reaction of lead tetraethyl are small quantities of dibromo ethane and other alkyl halides. Fig.3 shows the effect of atmospheric oxygen upon the decomposition of lead tetraethyl at  $135 \pm 0.3^\circ\text{C}$ . Table 1 shows that the separation of lead from the reaction mixture leads to a concentration of the decomposition intermediate product of hexaethyl diplumbane. Yu. I. Dergunov took part in some of the experiments. There are 3 figures, 3 tables, and 7 references: 5 Soviet, 1 American, and 1 German.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete (Scientific Research Institute of Chemistry of Gor'kiy State University)

SUBMITTED: January 8, 1960

Card 3/3

24(7), 5(4)

AUTHORS:

Rudnevskiy, N. K., Vyshinskiy, N. N.

SOV/48-23-10-22/39

TITLE:

The Molecular Spectra of Hexaethyl Dilead and the Determination of Its Concentration in Tetraethyl Lead

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,  
Vol 23, Nr 10, pp 1228-1229 (USSR)

ABSTRACT:

Industrially produced tetraethyl lead (TEL) which is used as antidetonant, generally also contains hexaethyl dilead (HED) which reduces its quality and chemical stability. The present paper deals with the spectrophotometric determination of HED in TEL. The TEL spectra have already been frequently investigated, whereas nothing is known to the authors about investigations of HED spectra. They therefore investigated the infrared spectra of HED within the range 1.5-25 $\mu$  by means of an IKS-2-spectrometer and a monochromator of the type EMP-2. However, it turned out that there is hardly any difference between the infrared spectra of HED and TEL within this range, which renders the method useless. By using electron spectra of these compounds (figure 1 - TEL (curve 1) and HED (curve 2) in n-heptane) a method for the quantitative determination of HED in

Card 1/2

The Molecular Spectra of Hexaethyl Dilead and the Determination of Its Concentration in Tetraethyl Lead

SOV/48-23-10-22/39

TEL could be worked out. Figure 2 shows the calibration curves: Line 1: HED determination in TEL at 320  $\mu\mu$  with a TEL standard; line 2: in n-heptane with n-heptane standard. The relative error in HED determination with a HED concentration of 0.5-3.5% amounted to be  $\pm 5\%$ . If TEL contains more than 3-4% HED, optical density is much greater, and therefore dilution is carried out with n-heptane. It is assumed that HED concentration in the sample is a linear function of the true concentration. In the case of such a determination the relative error is about  $\pm 4\%$ . The method of determining HED and TEL was used in practice when investigating the photo- and thermo-decay of TEL in the absence of air-oxygen. It was found that, both by uv-irradiation (Fig 3) and by the heating of TEL its optical density increases. This was assumed to be due to the increase of the HED content; this assumption was confirmed both by means of polarographic- and also by chemical methods. There are 3 figures and 7 references, 2 of which are Soviet.

Card 2/2

VOLKOV, V.F.; VYSHINSKIY, N.N.

Radiospectral comparator for investigating the absorption spectra  
of molecules. Zav.lab. 29 no.5:614-615 '63. (MIRA 16:5)

1. Gor'kovskiy gosudarstvennyy universitet im. N.I.Lobachevskogo.  
(Radio-frequency spectroscopy)

VOLKOV, V.F.; VYSHINSKIY, N.N.; RUDNEVSKIY, N.K.

Vibrational and rotational spectra of trimethylchlorosilane,  
triethylchlorosilane, and triethylchlorostannane. Izv. AN SSSR.Ser.  
fiz. 26 no.10:1282-1285 0 '62. (MIRA 15:10)  
(Silane—Spectra) (Tin organic compounds—Spectra) (Spectrum, Molecular)

VISHINSKIY, N.N.; ALEKSANDROV, Yu.A.; RUDNEVSKIY, N.K.

Vibrational spectra of tin and lead organic compounds and their analytical application. Izv. AN SSSR. Ser. fiz. 26 no.10:1285-1287 0 '62.

(MIRA 15:10)

(Tin organic compounds—Spectra) (Lead organic compounds—Spectra)  
(Spectrum, Molecular)

L 11404-63

MIT(e) /EDS

S/032/63/029/005/018/022

50

AUTHORS: Volkov, V. F. and Vyshinskiy, N. N.

TITLE: Radiospectral comparator for investigation of the absorption spectra of molecules

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 5, 1963, 614-615

TEXT: The design of an analyzer of microwave lines of gas absorption is described. The comparator for a frequency range of 7000 to 50,000 mc consists of 2 radio-spectroscopes, one of them a standard. In the standard, electric signals of the molecules serve as standards of frequency and intensity. The action of the research radiospectroscope is based on electric molecular modulation, and the radiospectral lines are determined by comparison with the standard absorption lines of the gas molecules. There is one figure.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo  
(Gor'kiy State University imeni N. I. Lobachevskiy)

ja/ll-

Card 1/1

VYSHINSKIY, N.N.; RUDNEVSKIY, N.K.

Oscillatory spectra of certain organometallic compounds of the  
elements of group IV. Opt. i spektr. 10 no. 6: 797-799 Je '61.  
(Organometallic compounds--Spectra)

RAZUZAYEV, G.A.; VYAZANKIN, N.S.; DERGUNOV, Yu.I.; VYSHINSKIY, N.N.

Thermal decomposition of tetraethyllead, hexaethylplumbane, and  
their analogs. Part 5: Reactions of decomposition and disproportiona-  
tion of hexaethyldistannane. Zhur. ob. khim. 31 no.5:1712-1717 My  
'61.  
(MIRA 14:5)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom  
gosudarstvennom universitete imeni N.I.Lobachevskogo.  
(Tin organic compounds)

S/04E/62/026/C10/C11/013  
B117/B186

AUTHORS: Vyshinskiy, N. N., Aleksandrov, Yu. A., and Rudnevskiy, N. K.

TITLE: Vibration spectra of organic tin and lead compounds and their analytical application

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 10, 1962, 1285-1287

TEXT: Unlike the spectra of tetra- and hexaethyl derivatives, the infrared absorption spectrum of triethyl germanium, that of triethyl tin, and that of triethyl lead oxides ( $\text{Et}_3\text{MOMe}_2$ ) of corresponding ethylates ( $\text{Et}_3\text{MOEt}$ ) and triethyl tin peroxide ( $\text{Et}_3\text{SnOOCSnEt}_3$ ), which were examined here (M = Ge, Sn, Pb; Et =  $\text{C}_2\text{H}_5$ ), display intense bands (Ge = 856, Sn = 776, Pb = 638  $\text{cm}^{-1}$ ) which are suited for analytical purposes and can be attributed to the asymmetric vibrations of the M-O-M group. It has been shown that the force constant of the M-O bond can be estimated under certain conditions relatively to the valence angles of the M-O-M group.

Card 1/2

Vibration spectra of organic ...

S/048/62/026/010/011/013  
B117/B186

The resulting values can be used to estimate the vibration frequencies of the M-O bond in triethyl germanium, triethyl tin, and triethyl lead ethylate. The vibration frequency of the Pb-O bond in an  $\text{Et}_3\text{PbOEt}$  molecule corresponds obviously to the asymmetric vibration frequency of the  $\text{PbC}_3$  group. In the range about  $590 \text{ cm}^{-1}$ , the spectrum of  $\text{Et}_3\text{SnOEt}$  shows a band of medium intensity, which can be attributed to the vibration of Sn-O. The question whether the weak band detected in the  $\text{Et}_3\text{GeOEt}$  spectrum near  $650 \text{ cm}^{-1}$  can be assigned to the vibrations of the Ge-O bond has not yet been answered. For analytical purposes, however, the intense bands found in the spectra of ethylates around  $900 \text{ cm}^{-1}$  and between  $1050$  and  $1100 \text{ cm}^{-1}$  are more important. The  $550 \text{ cm}^{-1}$  band in the spectrum of triethyl tin peroxide and the  $790 \text{ cm}^{-1}$  band in the spectrum of triethyl silicon peroxide must be attributed to the stretching vibrations of the Sn-O and Si-O bond, respectively. The characteristics of the spectra under examination made it possible to investigate the mechanism underlying the oxidation of hexaethyl diplumbane and hexaethyl distannane as well as the properties of triethyl tin peroxide (Yusup Analekhanov, N. N. Vyshnevskiy, et al., Tr. po khimii i khim. tekhnologii, Gor'kiy, 3, 656 (1961)). There are 3 figures.

Card 2/2

L 26723-66 EWT(m)/EWI(j)/T IJP(c)  
ACC NR: AR6011876

WW/RM

SOURCE CODE: UR/0081/65/000/016/S030/S031

AUTHOR: Vyakhirev, D. A.; Zabotin, K. P.; Zuyeva, Ye. M.; Troitskiy, B. B.;  
Vyshinskiy, N. N.; Nikolayeva, M. V.; Pogrebnaya, T. I.; Fomicheva, L. V.TITLE: Gas chromatography study of impurities in methylmethacrylate and analysis of  
their effect on the process of polymerization

SOURCE: Ref. zh. Khimiya, Abs. 16S214

TOPIC TAGS: methanol, methylmethacrylate, glycol, polymerization rate, molecular  
weight, monomerABSTRACT: With the use of the gas chromatography method on an INZ-600 brick with a  
selective liquid phase of polyethylene glycol 1000, it has been determined that the  
basic admixtures in industrial methylmethacrylate are dimethyl ether, methylformate,  
methylpropionate, methanol, methyl- $\beta$ -methoxypropionate, and three unidentified sub-  
stances. An investigation was made of the effect of supplementing the detected ad-  
mixtures to methylmethacrylate on the polymerization rate and the molecular weight  
of the polymer obtained by standard methods in emulsion at 40C. It was shown that  
up to 2% methanol increases the polymerization rate and the molecular weight. Above  
1% methylformate decreases the molecular weight and above 3% decreases the polymeri-  
zation rate. Methylpropionate sharply decreases the molecular weight and the poly-  
merization rate at a concentration of 0.5 to 1%. Acetaldehyde has no effect on the

Card 1/2

L 26723-66

ACC NR: AR6011876

polymerization rate, but it decreases the molecular weight. The addition of poly-methylmethacrylate to a monomer causes an increase in the polymerization rate and a decrease in the molecular weight. Hydroquinone, added to the monomer as the inhibitor, causes a sharp drop of the polymerization rate and the molecular weight. V. Kopylov.  
[Translation of abstract] [MT]

SUB CODE: 11,07/ SUBM DATE: none/

Card 2/2. JV

49768-65 EPF(c)/EFP(j)/ENT(m) PC-4/PR-4  
ACCESSION NR: AR5012251

RM  
UR/0058/65/000/003/D033/D033

SOURCE: Ref. zh. Fizika, Abs. 3D238

AUTHORS: Vyshinskiy, N. N.; Kozlova, T. V.; Rudnev, N. K.

TITLE: Investigation of the influence of the aggregate state and of the temperature on the vibrational infrared spectra of ethyl derivatives of silicon, germanium, and tin.

CITED SOURCE: Tr. Komis. po spektroskopii. AN SSSR, vyp. 1, 1964, 451-459

TOPIC TAGS: infrared spectrum, vibrational spectrum, ethyl derivative, silicon, germanium, tin.

TRANSLATION: Infrared spectra were investigated of given ethyl derivatives of the type  $(C_2H_5)_4M$ ,  $(C_2H_5)_3MX$ , and  $(C_2H_5)_3M(C_2H_5)_3$  ( $M = Si, Ge, Sn$ ) in the temperature range from -170 to +200°C. The spectra of most frozen substances were richer in the number of vibrational frequencies than the spectra of the liquids. Splitting of individual bands is observed. The character of the behavior of the absorption

Card 1/2

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961410015-3

L 49768-65

ACCESSION NO. ADF 21, 1961

STB 101 P 1 1

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961410015-3"

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S/048/62/026/010/010/013  
B117/B186

AUTHORS: Volkov, V. F., Vyshinskiy, N. N., and Rudnevskiy, N. K.

TITLE: Rotational vibration spectra of trimethyl silane chloride, triethyl silane chloride, and triethyl stannane chloride

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 10, 1962, 1282-1285

TEXT: Microwave spectra (20,000-40,000 Mc/sec) of  $(CH_3)_3SiCl$ ,  $(C_2H_5)_3SiCl$ ,  $(CH_3)_3SnCl$ ,  $(C_2H_5)_3SnCl$  and infrared absorption spectra ( $400-1600\text{ cm}^{-1}$ ) of  $(CH_3)_3SiCl$ ,  $(C_2H_5)_3SiCl$ ,  $(C_2H_5)_3SnCl$ , and  $(C_2H_5)_2SnCl_2$  ( $400-1300\text{ cm}^{-1}$ ) were examined. The infrared absorption spectra of  $(CH_3)_3SiCl$  and  $(C_2H_5)_3SiCl$  agree with published data (A. L. Smith, J. A. McHard, Anal. Chem., 31, 1174 (1959); Ya. I. Ryskin, M. G. Voronkov, Collect. Czechoslov. Chem. Com., 24, 3816 (1959)). Infrared spectra of crystallizing  $(C_2H_5)_2SnCl_2$  show a frequency change of the band which corresponds with the stretching vibrations of the C-C bond. This is related to the different symmetries of

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S/048/62/026/010/010/013  
B117/B186

Rotational vibration spectra...

a molecule in solution (point group  $C_{2v}$ ) and in crystalline state ( $C_s$ ). According to their microwave spectra,  $(CH_3)_3SiCl$  and  $(CH_3)_3SnCl$  possess the configuration of a symmetric gyro (point group  $C_{3v}$ ). Spectra show distinctly marked harmonic series of these molecules with Cl<sup>35</sup> and Cl<sup>37</sup> isotopes. In accordance with the configuration stated above, the band in the infrared spectrum of  $(CH_3)_3SiCl$ , which corresponds to the stretching vibrations of the Si-Cl bond, is symmetric. In addition to the lines which are characteristic of symmetric gyros, the microwave spectrum of  $(C_2H_5)_3SiCl$  exhibits a large number of other lines indicating that the molecule concerned exists in the form of rotational isomers. The presence of such molecules, and the presumed configuration of the point groups  $C_3$ ,  $C_s$ , and  $C_1$ , account for the complex structure of the infrared absorption bands corresponding to the stretching vibrations of the C-C bonds of various isomers. The moment of inertia and the rotation constant of the molecule suggest that a  $C_{3v}$  symmetry can be assigned to  $(C_2H_5)_3SiCl^{35,37}$ . The microwave spectrum of  $(C_2H_5)_3SnCl$  shows no lines

Card 2/3

Rotational vibration spectra ...

S/048/62/026/010/010/013  
B117/B186

indicating the configuration of a symmetric gyro. On the strength of the infrared spectrum it is possible, however, to regard the configuration with  $C_s$  symmetry as the isomeric ground state of  $(C_2H_5)_3SnCl$ . There are 2 figures and 1 table.

"Card 3/3

VYSHINSKIY, O.M. [Vyhyns'kyi, O.M.], kand.sel'skokhozyaystvennykh nauk

Liquid nitrogen fertilizers. Nauka i zhystia 8 no.8:36-38  
Ag '58. (MIRA 12:1)

(Fertilizers and manures)

USSR / Cultivated Plants. Grains.

M-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24959

Author : Vyshinskiy, O. M.

Inst : Not given

Title : The Peat and Lupine Composts and the Methods of  
Using Peat Together with Green Manure in Fallows  
for Winter Crops

Orig Pub: Nauk. pratsi vid. sil'skogosp. nauk. AN URSR,  
1956, vip. 4, 48-54 (Ukrainian)

**Abstract:** According to the findings of the experiment made  
at the Buchanskiy Experimental Point (Poles'ye),  
peat and lupine composts increase the effectiveness  
of peat as a fertilizer. They help to increase the  
mobile forms of nitrogen in the soil and increase  
its biological activity. Peat and lupine may be  
applied without preliminary composting, ploughing

Card 1/2

24

VYSHINSKIY, R.

Through the objective of an amateur's camera. Sov. foto 18 no. 5:  
33-34 My '58. (MIRA 11:5)  
(Photography)

ACC NR: AT6022362

AUTHOR: Vyshinskiy, S. A.

ORG: none

SOURCE CODE: UR/0000/66/000/000/C023/C029

TITLE: Electromagnetic-wave propagation over a shielded helical line having a dielectric core, with an allowance for wire finite conductivity.

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya volnovodnykh ustroystv. Doklady. Moscow, 1966, 23-29

TOPIC TAGS: transmission line, helical antenna

ABSTRACT: Formulas are derived for calculating parameters of a helical transmission line from its known construction. From a characteristic equation for the propagation constant of such a line, technical formulas for the attenuation, shortening factor, and characteristic impedance are derived. Plots of the first two parameters vs.  $b/a$  (radii of the helix and shield, respectively) and of the characteristic impedance vs. frequency are shown. The results are claimed to be useful also for designing a line. Orig. art. has: 5 figures and 15 formulas.

SUB CODE: 09 / SUBM DATE: 19Mar66 / ORIG REF: 005 / OTH REF: 001

Card 1/1

VYSHINSKIY, V.

APTER, N.; VYSHINSKIY, V.

Cookery. Rabotnitsa 35 no.1:31 Ja '57.

(MLRA 10:2)

(Cookery (Mushrooms))

General Physics

1960 Nudelman, Shatashvili, et al. Experiments in the Theory of Metallic Films. I (Measurement of the effect of Neel's Electrons agree with Mott's Theory. Neel's Results completely Inexplicable). Zhukhov A. Vyschimakym. (Journ of Phys. of USSR), No. 3, Vol. 4, 1961, pp. 235-240 (in English)

APTER, Nusen Danilovich, VISHINSKIY, Vyacheslav Arkad'yevich

[Mushroom handbook] Pamiatka gribnika. [Moskva] Moskovskii  
rabocheii, 1958. 90 p. (MIRA 11:11)  
(Mushrooms)

VYSHINSKIY, V. V.

"Investigation of Heat and Mass Transfer in Cyclone Chambers."

Report submitted for the Conference on Heat and Mass Transfer,  
Minsk, BSSR, June 1961.

KONKIN, B.N., dotsent; VYSHINSKIY, Yu.M., inzh.

Braking force produced by 14Kr-1 electric locomotives in  
potassium mines of the upper Kama deposit. Izv. vys. ucheb.  
zav.; gor. zhur. 6 no.8:88-89 '63. (MIRA 16:10)

1. Permskiy politekhnicheskiy institut. Rekomendovana kafedroy  
pod"yemno-transportnykh mashin.

KONKIN, B.N., dotsent; VYSHINSKIY, Yu.M., inzh.

Use of electric mine locomotives for pulling loaded cars up an incline. Izv. vys. ucheb. zav.; gor. zhur. 6 no.3:74-79 '63.  
(MIRA 16:10)

1. Ferm'skiy politekhnicheskiy institut. Rekomendovana kafedroy pod"yemno-transportnykh i gornykh mashin.

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961410015-3

VYSHITKOV, M. A., NIKIFOROV, G. N., and A. A. MINKH

"The Influence of Ionized Air on the Working Capacity and  
Vitamin Metabolism."

report to be presented by Prof. A. A. Minkh at the First Intl. Conf.  
on Ionization of the Air, Phila, Pa, 16-17 Oct 1961.

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961410015-3"

VYSHIVKIN, D.D.; DOBRODEYEV, O.P.

Characteristics of salinization in landforms of the low  
sandy shore areas of the southeastern part of the Caspian  
Sea region. Vest. Mosk. un. Ser. 5:51-54 N-D '65.

(MIRA 19:1)

VORONOV, A. G.; TUPIKOVA, N. V.; CHELTSOV-BEBUTOV, A. M.; VYSHIVKIN, D. D.

"Some trends in modern biogeographic mapping of the land."

report scheduled to be presented at the 20th Intl Geographical Cong, London,  
6 Jul-11 Aug 64.

Univ. of Moscow.

VYSHIVKIN, D.D.

Methods for compiling ground salinity maps on the basis of geo-  
botanical data. Trudy VAGT no.1:71-81 '55. (MLRA 9:11)  
(Alkali lands) (Phytogeography)

VIKTOROV, Sergey Vasil'yevich, starshiy nauchnyy sotrudnik; VOSTOKOVA,  
Yelizaveta Alekseyevna; VYSHEVSKIN, Dmitriy Dmitriyevich; KHAKIMOV,  
V.Z., red.; GEORGIYEVA, G.I., tekhn.red.

[Brief manual of geobotanical surveying] Kratkoе rukovodstvo po  
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ASR-SEA METALLURGICAL LITERATURE CLASSIFICATION									
FROM SOURCE		CROSS REF ONLY ONE		REFERENCE		FROM SOURCE		CROSS REF ONLY ONE	
140000 94		1	2	3	4	5	6	7	8
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